

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1. (Original) A holographic apparatus comprising:
a mask for modulating a signal beam to generate a modulated signal beam;
a conical prism, which includes a cone portion and a base portion, for refracting a reference beam to generate a refracted reference beam, wherein the refracted reference beam interferes with the modulated signal beam in a holographic medium to thereby record data thereon, the base portion facing the holographic medium.
2. (Original) The apparatus of claim 1, wherein an optical path of the refracted reference beam depends on a refractive index of the conical prism.
3. (Original) The apparatus of claim 1, wherein the conical prism is replaced with another one having a different base angle for multiplexing.
4. (Original) The apparatus of claim 1, wherein an optical path of the refracted reference beam is controlled by the following relationship of:

$$\sin^{-1} [n \sin \{a - \sin^{-1}(\sin a / n)\}] = d,$$

wherein 'n' is an index of refraction of the medium of the conical prism, 'a' indicates the base angle of the conical prism, and 'd' is an angle of incidence on the holographic medium.

5. (Currently Amended) The apparatus of claim 4, wherein the angle 'd' satisfies the relationship of:

$$X2 = X1/\cos d > X3,$$

wherein 'X1' is one-half of the full size of the reference beam which is projected onto the conical prism, 'X2' is a beam size of the refracted reference beam of one-half of the full size of the reference beam at the base portion of the conical prism, and 'X3' is one-half of the difference between the outer and the inner diameters of the recording region of the holographic medium.

6. (Original) The apparatus of claim 1, wherein a distance between the conical prism and the holographic medium is varied for multiplexing.

7. (Original) The apparatus of claim 6, wherein the distance is determined by the formula of:

$$\tan d = X2/Y,$$

wherein 'd' is an angle of incidence on the holographic medium, 'X2' is a beam size of the refracted reference beam at the base portion of the conical prism, and 'Y' is the distance between the conical prism and the holographic medium.

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8. (Canceled)

9. (Cancelled)

10. (Canceled)